

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/035742 A3

(51) International Patent Classification⁷: C12N 5/10,
A61K 35/00

(21) International Application Number:
PCT/US2004/033220

(22) International Filing Date: 7 October 2004 (07.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/509,928 9 October 2003 (09.10.2003) US
60/510,021 8 October 2003 (08.10.2003) US
60/510,022 8 October 2003 (08.10.2003) US
60/510,072 9 October 2003 (09.10.2003) US

(71) Applicant (for all designated States except US): VET-
STEM INC. [US/US]; 12120 Tech Center Drive, Suite D,
Poway, California 92064 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HARMAN, Robert,
J. [US/US]; 1460 Cedar Street, Ramona, California 92065
(US). SAND, Theodore, T. [US/US]; 12745 Corte Reyito,
Poway, California 92064 (US).

(74) Agents: LAHERTY, Carol, D. et al.; Seed Intellectual
Property Law Group PLLC, 701 - 5th Avenue, Suite 6300,
Seattle, Washington 98104-7092 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

(88) Date of publication of the international search report:
9 September 2005

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

WO 2005/035742 A3

(54) Title: METHODS OF PREPARING AND USING STEM CELL COMPOSITIONS AND KITS COMPRISING THE SAME

(57) Abstract: The present invention provides novel stem cell compositions having significant therapeutic and practical advantages, as well as methods of preparing and using such compositions for the treatment and prevention of injury and disease in patients. The invention may be applied to stem cell populations isolated from a wide variety of animals, including humans, and tissues. In particular applications, the invention is used to prepare a stem cell composition from a collagen-based tissue, such as adipose tissue, isolated from a patient, and the stem cell composition is subsequently provided to a site of actual or potential injury in the patient. The invention further includes related kits comprising the stem cell compositions, which are remarkably stable and retain viability and efficacy during storage and shipment.